



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D350-604-041
Job Sheet 155143



Part No: D350-604-041

Job Qty: 1 ea

Part Name: Rear Locker Extender



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 9/30/17

Job Tracking No:

Due Date: 11/1/17

Created By: Mario Poulin

Type: Stock

Description:

Customer: Rilpa Enterprises Ltd (CRILP01)

480 Aviation Way NE Calgary, AB, T2E 7G3 Canada ph:(403) 275-3035 fx:(403) 730-0170.

Note: DWG D350-604-041 REV C U/R, D2273 REV M IPP Rev:Q 03.12.01 Reformat KJ/RF IPP REV:R 12.02.07 AS PER ECN12-521 DD verf:JLM IPP REV:S 12.04.04 AS PER DWG REV.B DD VERF:EC IPP REV:T 13.09.12 as per CHG006/ECN13-616 DDVERF:JLM IPP REV:U 14.05.28 as per chg008/ecn14-563 DD verf:JLM IPP REV:V 15.03.13 remove cam lock and washerDD verf:JLM IPP REV:W 15.03.25 ECN15-545 DD VERF:JLM IPP REV:X 17.01.12 AS PER CHG010 DD VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Due Date	Standard		Workcenter/Supplier	
				Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time
90	Start up Operation	1 Ea	10/31/17	0.00	0.00	Start up container	
100	DC	1 pcs	10/31/17	0.00	0.00	DC	
110	Purchasing	1 pcs	10/31/17	0.00	0.00	Purchasing	
120	Packaging	1 pcs	10/31/17	0.00	0.00	Packaging2	
130	QC	1 pcs	10/31/17	0.00	0.00	QC6	
140	Small Fab	1 pcs	11/1/17	0.00	1.61	Small Fab	
150	QC	1 pcs	11/1/17	0.00	0.00	QC5	
155	Packaging	1 pcs	11/1/17	0.00	0.00	Packaging1	
158	QC	1 pcs	11/1/17	0.00	0.00	QC4	
160	Packaging	1 pcs	11/1/17	0.00	0.00	Packaging3	
170	QC21-FG	1 Ea	11/1/17	0.00	0.00	QC21	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	D350-604-041P	1	0	0	0
140-Small Fab	D2268	1	7	0	0
	D2728-1	1	0	0	0
155-Packaging	D2269	1	1	0	0
	D5062-041	1	4	0	0

Part Specifications

Specifications could not be found.

DART
AEROSPACE

S016437



Rear Locker Extender

D350-604-041

Packaging

PART NO:
Revision:
Operation:
Change No:

Dart Aerospace Ltd.
1270 Aberdeen Street, 1K7
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Mfg Date: 12/01/17
Job No: 155143

Work Order ID 155143***155143***

Page 1

Monday, January 09, 2017 11:30:05 AM

Item ID: D350-604-041

Accept

N900040100

Setup Start

NS1

Revision ID: URF 16-567

Stop

NS2

Item Name: Rear Locker Extender

Start Date: 9/29/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 11/1/2017 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: DAS 21 Date: JAN 12 2017 Tooling: _____ Date: _____
QC: 9-89 Date: _____ SPC (Y/N): _____ Date: _____

Run Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D2273	L/R M
D350-604-041	C U/R

100

Document Control

0.00

100

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile and create labels per PPP D350-604-041

CHG009

chg010 see attachment

110

PURCHASING

0.00

110

Purchasing

Memo

0.00

Purchasing

Issue P/O: 34975

Description: D350-604-041 Rear locker extender.

Manufacture as per dwg D2273

Supplier: FDC Composites Inc.

Certification of Conformity and process sheet required.

***EXTREME CARE MUST BE TAKEN TO PROTECT THE SURFACES OF
THE REAR LOCKER. THE SURFACES MUST BE SMOOTH AND FREE
FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR
DENTS.***

MUST BE WELL PACKAGE, IF NOT IT WILL BE REFUSE

1

JAN 17 2017

DAS
13
9-89

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
						QC / QA Coordinator Approval			

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification ☐	☐	Pressure/Forced ☐	☐	Temperature/Cure ☐	☐
Design ☐	☐	Operator ☐	☐	Bending ☐	☐	Set-up ☐	☐
Doc/Data ☐	☐	Offset/Setup ☐	☐	Centre Not Concentric ☐	☐	BOM/Route ☐	☐
Equip/Tooling ☐	☐	Supplier ☐	☐	Cracks ☐	☐	Broken/Damage/Defect ☐	☐
Handling/Pre ☐	☐	Training ☐	☐	Crimp/Kink/Ripple/Wave ☐	☐	Inspection Incomplete/Unqualified ☐	☐
Material ☐	☐	Use for Testing ☐	☐	Cuffs ☐	☐	Contamination ☐	☐
Internal Transport ☐	☐	Poor Information ☐	☐	Crushing ☐	☐	Countersink ☐	☐
Tribal Knowledge ☐	☐	Rushing ☐	☐	Heat Treat ☐	☐	Cut Too Short ☐	☐
LOA ☐	☐	Product Improvement ☐	☐	Wave/Twist in Tube ☐	☐	Instructions Incomplete/Unclear ☐	☐
Substation ☐	☐	Process Improvement ☐	☐	Marks/Chatter ☐	☐	Drill Holes ☐	☐
Past Expiry Date ☐	☐	Manufacturing Process ☐	☐	OTHER : _____			
Misidentified ☐	☐	Past Due ☐	☐				

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Work Order ID 155143

Monday, January 09, 2017 11:30:06 AM

155143

Page 3

Item ID: D350-604-041**Accept*****N900040100*****Setup Start *NS1*****Revision ID:** URF 16-567**Item Name:** Rear Locker Extender**Stop *NS2*****Start Date:** 9/29/2017 **Start Qty:** 1.00***1*****Cust Item ID:****Required Date:** 11/1/2017 **Req'd Qty:** 1.00***1*****Customer:****Reference:****Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____**Run Start *NR1*****QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____**Stop *NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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150

QC5- Inspect part completeness to step on W/O

0.00

150

QC

Memo

0.00

Quality Control

155

Pick Kit

0.00

155

Packaging

Memo

0.00

Packaging

DO NOT STACK REAR LOCKERS OR ANYTHING ON THEM

158

QC4- 100% Inspect kits for completeness

0.00

158

QC

Memo

0.01

Quality Control

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Work Order ID 155143***155143***

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Monday, January 09, 2017 11:30:06 AM

Item ID: D350-604-041**Accept*****N900040100*****Setup Start*****NS1*****Revision ID:** URF 16-567**Stop*****NS2*****Item Name:** Rear Locker Extender**Start Date:** 9/29/2017 **Start Qty:** 1.00***1*****Cust Item ID:****Required Date:** 11/1/2017 **Req'd Qty:** 1.00***1*****Customer:****Reference:****Approvals:****Process Plan:** _____**Date:** _____**Tooling:** _____**Date:** _____**Run Start*****NR1*****QC:** _____**Date:** _____**SPC (Y/N):** _____**Date:** _____**Stop*****NR2*****Sequence ID/
Work Center ID****Operation
Description****Set Up/
Run Hours****Tool ID****Tool #****Plan
Code****Accept
Qty****Reject
Qty****Reject
Number****Insp.
Stamp**

160

0.00

160

Packaging

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D350-604-041

Location: _____

PPP Rev: _____

170

0.00

170

QC21- Final Inspection - Work Order Release

QC

Memo

0.02

Quality Control

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

Page 1

Monday, January 09, 2017 11:30:08 AM

Work Order ID: 155143

155143

Parent Item: D350-604-041

D350-604-041

Parent Item Name: Rear Locker Extender

Start Date: 9/29/2017

Required Date: 11/1/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:Q03.12.01ReformatKJ/RF IPP REV:R
12.02.07 AS PER ECN12-521 DD verf:JLM IPP REV:S 12.04.04
AS PER DWG REV.B DD VERF:EC IPP REV:T 13.09.12 as per
CHG006/ECN13-616 DDVERF:JLM IPP REV:U 14.05.28 as per
chg008/ecn14-563 DD verf:JLM IPP REV:V 15.03.13 remove cam lock and
washerDD verf:JLM IPP REV:W 15.03.25 ECN15-545 DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D350-604-041P		Purchased	No			110	Each	0.0000	1	1			
D350-604-041P									**				
Rear Locker Extender													
D2268		Manufactured	No			140	Each	13.0000	1	1			
D2268									**				
Placard													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST006		13							
					147069	7		6/13/2017					
					148553	6		7/22/2017					
D2728-1		Manufactured	Yes			140	Each	-1.0000	1	1			
D2728-1									**				
Dart Logo Label Small													
D2269		Manufactured	No			155	Each	8.0000	1	1			
D2269									**				
Placard													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST006		8							
					147070	2		6/13/2017					
					148588	6		7/22/2017					

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			Completed By
					Lead hand / Supervisor Approval Verification
					QC / QA Coordinator Approval
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

Monday, January 09, 2017 11:30:08 AM

Work Order ID: 155143

155143

Parent Item: D350-604-041

D350-604-041

Parent Item Name: Rear Locker Extender

Start Date: 9/29/2017

Required Date: 11/1/2017

Start Qty: 1.00

Required Qty: 1.00

D5062-041

Manufactured

No

155

Each

16.0000

1

1

D5062-041

Bracket Assembly

Location

Loc Qty

Loc Code

ST147

16

145920

16

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval				
Description Work Order Deviation				Disposition				Completed By			
								Lead hand / Supervisor Approval Verification			
								QC / QA Coordinator Approval			
Root Cause				FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐		No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	
OTHER : 											

TABLE 1

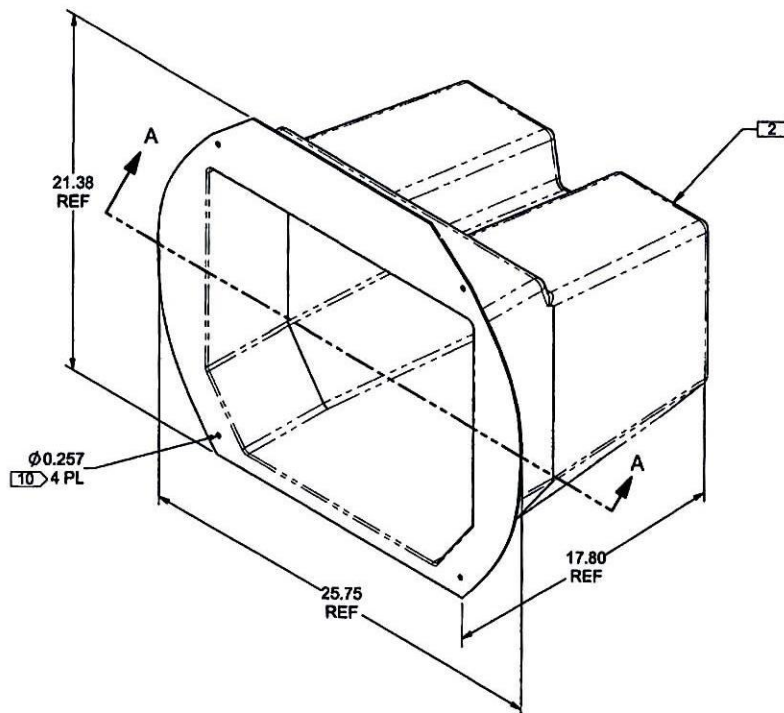
POSITION	MATERIALS
1	TOOL SURFACE
2	GELCOAT
3	3/4 oz CHOPPED STRAND MAT
4	7725 FIBER GLASS
5	7725 FIBER GLASS
9	7725 FIBER GLASS
10	PRIMER

TABLE 2

POSITION	MATERIALS
1	TOOL SURFACE
2	GELCOAT
3	3/4 oz CHOPPED STRAND MAT
4	7725 FIBER GLASS
5	7725 FIBER GLASS
6	7725 FIBER GLASS
7	7725 FIBER GLASS
8	7725 FIBER GLASS
9	7725 FIBER GLASS
10	PRIMER

NOTES:

- 1) MATERIAL: SEE TABLE 3
 2) FINISH: SEE TABLES 1, 2, & 3
 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
 7) WEIGHT: 5.5-7.5 lbs
 8) LAMINATE PER DART QSI 006. LAMINATION SCHEDULE PER THIS DRAWING
 9) LAYUP USING DT9871 MOLD. WET LAYUP WITH BAG/VACUUM
 10) TRIM & DRILL PER DT9905. OPEN HOLES TO Ø0.257
 11) CONSTRUCTION: SEE TABLES 1 & 2
 12) MATTE TO HOLD DOWN CORNERS AS REQUIRED



D2273 REAR LOCKER EXTENDER

TABLE 3

MATERIAL USED	DESCRIPTION
GELCOAT	55X3535 WHITE GELCOAT
FIBER GLASS MAT	OWENS CORNING 3/4 oz CHOPPED STRAND MAT
FIBER GLASS CLOTH	HEXCEL 7725 FIBER GLASS
RESIN SYSTEM	DION 7704
PRIMER	TEMPO 4500-PB-23G (GREEN)

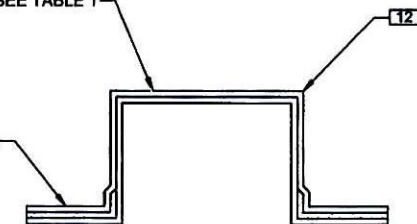
SHOP COPY
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WORK ORDER

NO. 155143 MLJ
17-01-12

SEE TABLE 1

SEE TABLE 2



SECTION A-A

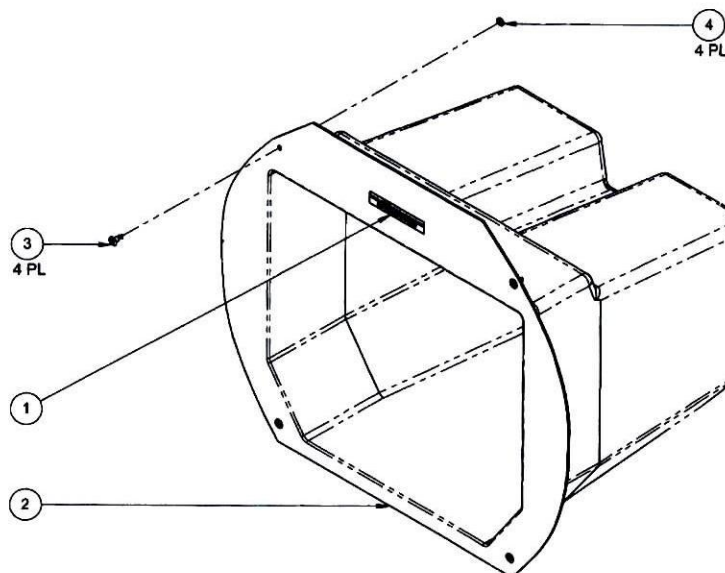
M	CHANGE GELCOAT TO 55X3535 WHITE GELCOAT, REMOVE PAINT FINISH OPTION (NOTE 2)	DB	18.05.19
L	ADD PAINT OPTION (NCR 15-5408)	CP	15.10.19
K	LAYUP AND MAT'L PER FDC COMPOSITES PROCESS	CP	15.03.12
J	CHANGED GELCOAT TO 4314-001 DURA FR WHITE	ML	13.12.10
I	CHANGE GELCOAT TO POLYCOR 2330PAWK745	SFM	13.08.13
H	CHANGE MATERIAL & MANUFACTURING PROCESS	DC	13.03.15
G	ADD MANUFACTURING OPTION B, ZN B5-1	DC	12.08.08
F	PRIMER LE 3404-S/LE 1175-S WAS 1144-S, ZN A6-1	DC	12.02.27
E	CHANGED SURFACE FINISH FROM 944W005 GELCOAT TO 2330PAWK745 GELCOAT, ZN A7-1. UPDATED DWG TO CURRENT STANDARDS.	DC	12.02.02
D	REMOVE EPOCAST, ADD SURFACE FINISH	CP	02.04.01
C	CLARIFY MATERIAL, LAYUP, AND TOOLING	RF	02.01.30
B	RE-DRAWN	MM	06.05.27
REV.	DESCRIPTION	BY	DATE

DESIGN	JB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DB		
CHECKED	ML	DRAWING NO.	REV. M
MFG. APPR.	DD	D2273	SHEET 1 OF 1
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	350 REAR LOCKER EXTENDER	NTS
DATE	16.05.19	COPYRIGHT © 1998 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

RELEASED
 2017-01-11
 ECA 17-501

APPROVED

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
	X	D350-604-041	REAR LOCKER EXTENDER ASSEMBLY
1	1	D2268	PLACARD
2	1	D2273	REAR LOCKER EXTENDER
3	4	2600-6	CAMLOCK STUD
4	4	2600-LW	RETAINING WASHER



D350-604-041 REAR LOCKER EXTENDER ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 5.5 TO 7.5 lbs
- 8) INSTALL D2268 PLACARD IN LOCATION SHOWN, CENTERED ON FLANGE

C	REMOVE D2728-1, D2729-1 DECALS (ZN C5-1) REVISED RELATED NOTES, UPDATED PART WEIGHT	ML	13.12.16
B	INCORPORATE DSI 9470 (ZN D7-1), UPDATE DWG TO CURRENT STANDARDS. ADD D2728-1 PLACARD AND ORIENTATION NOTE (ZN C3-1). ADD D2729-1 (ZN C5-1).	DC	12.02.07
A	NEW ISSUE	CP	02.04.01
REV.	DESCRIPTION	BY	DATE
DESIGN	DW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	ML		
CHECKED	AP	DRAWING NO.	REV. C
MFG. APPR.	JLM	D350-604-041	SHEET 1 OF 1
APPROVED	MP	TITLE	SCALE
DE APPR.	DS	RLE ASSY	NTS
DATE	14.01.02	COPYRIGHT © 2002 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

10

D350-604-041

REAR LOCKER EXTENDER



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO34975

Supplier: FDC001-VC
FDC Composites Inc.
45 chemin de L'Aeroport , Local 26
St-Jean-sur-Richelie
QC
J3B 7B5 Canada
Phone: 450-357-1344 ext303
Fax: 450-357-1194

PO No: PO34975
PO Date: 1/17/17
Due Date: 11/1/17
**Purchase Order
Revision:**
Revision Date:
Ship-To Contact: Phone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Pymt Terms: net 30
Freight Terms:
Special Comments:

Items

Line Item	Part	Rev	Description	Item Tax	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	D350-604-041P	-	Rear Locker Extender		Firmed	11/1/17	1 Ea	0 Ea	1 Ea	\$705.00/Ea	\$705.00
2	D350-604-041P	-	Rear Locker Extender		Firmed	11/1/17	1 Ea	0 Ea	1 Ea	\$705.00/Ea	\$705.00
3	D350-604-041P	-	Rear Locker Extender		Firmed	11/1/17	1 Ea	0 Ea	1 Ea	\$705.00/Ea	\$705.00
4	D350-604-041P	-	Rear Locker Extender		Firmed	11/1/17	1 Ea	0 Ea	1 Ea	\$705.00/Ea	\$705.00
5	D350-604-041P	-	Rear Locker Extender		Firmed	11/1/17	1 Ea	0 Ea	1 Ea	\$705.00/Ea	\$705.00
Grand Total:											\$3,525.00

Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 10/6/17 1:11 PM Dart.Baker.Diane

FDC Composites inc.
45, Chemin de L'Aéroport
Local 26
Saint-Jean-sur-Richelieu (QC)
J3B 7B5
Tel. : 450 357-1344

Shipping Order

15/11/2017

Order : 2700
Reference : PO 34975/1-5

Customer: DAE-CAD

Dart Aerospace
1270 Aberdeen Street
Hawksbury, ON
K6A 1K7

Ship To

Same

Tel.: 1 613 632-9577

Item No.	Description	Qty	Qty. Delivere	B/O Qty
D350-604-041P ✓	REAR LOCKER EXTENDER PO item: 34975/1 Lot: 2017-02-28 FDC ID: DAE001-121 B155143	1		
D350-604-041P	REAR LOCKER EXTENDER PO item: 34975/2 Lot: 2017-03-01 FDC ID: DAE001-122 B155144	1		
D350-604-041P	REAR LOCKER EXTENDER PO item: 34975/3 Lot: 2017-03-01 FDC ID: DAE001-123 B155145	1		
D350-604-041P	REAR LOCKER EXTENDER PO item: 34975/4 Lot: 2017-03-02 FDC ID: DAE001-125 B155146	1		
D350-604-041P	REAR LOCKER EXTENDER PO item: 34975/5 Lot: 2017-03-02 FDC ID: DAE001-127 B155147	1		

SEP 11-30

Shipping : _____
Package No : _____
Merchandise Received: _____

Ref. : _____



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CERTIFICATE of CONFORMITY

Customer Name: Dart Aerospace.

Customer P/O Number: 34975

Revision: NC

<u>PO Item</u>	<u>Qty</u>	<u>Part number</u>	<u>Dwg number</u>	<u>Description</u>	<u>Dart ID</u>	<u>FDC ID</u>	<u>Lot</u>
1	1	D350-604-041P	D2273 Rev M	350 Rear Locker Extender	B155143	DAE001-121	2017-02-28
2	1	D350-604-041P	D2273 Rev M	350 Rear Locker Extender	B155144	DAE001-122	2017-03-01
3	1	D350-604-041P	D2273 Rev M	350 Rear Locker Extender	B155145	DAE001-123	2017-03-01
4	1	D350-604-041P	D2273 Rev M	350 Rear Locker Extender	B155146	DAE001-125	2017-03-02
5	1	D350-604-041P	D2273 Rev M	350 Rear Locker Extender	B155147	DAE001-127	2017-03-02

I hereby certify that the workmanship, material and the processes used in the manufacture of the above part(s) supplied are in accordance with the requirements of the applicable Purchase Order.

Signature: Marjorie Geoffrion
Marjorie Geoffrion, Quality Inspector

Date: 2017-11-15



Gamme de Fabrication

Nom de Gamme :	Rear locker extender - DART
# de Gamme (et rev.) :	DAE001 Rev. E
Nom pièce - Client :	350 Rear locker extender - DART AEROSPACE
# de Dessins (et rev.) :	D2273 Rev. J

# LOT	21071002128
# SÉRIE(ID)	DAE001-121

10: BLS5143 #1

Fiche suiveuse

PLAGE (ÉTAPES)	DÉPARTEMENTS	DESCRIPTION GÉNÉRALE	DATE(HR) SORTIE
[10-60]	Préparation	Moule, Espace de travail, Matière premières, Consommables	#21 #23 23 FEV 2017 22 FEV 2017
[70-90]	Finition/Peinture	Appliquer Gel coat, Inspecter	#3 28 FEV 2017
[100-150]	Laminage	Laminer, Démouler, Inspecter	#21 #25 28 FEV 2017 28 FEV 2017
[160-200]	Usinage	Percer, Découper, Ébavurer, Inspecter, Sabler	#30 9 MAR 2017
[210-230]	Finition/Peinture	Primer, Inspection	#3 28 MAR 2017
240	Expédition	Emballer, Expédier	#8 31 OCT 2017

Gamme préparé par :

Guillaume G.Jasmin

Gamme révisée par :

Pascal Seguin

Gamme vérifiée par

(Chefs d'équipe) :

Gamme approuvée par :

Date d'émission :

Rev.
2017-02-20

Approbation Qualité

Avant de produire le CofC, toutes les étapes et les informations requises des gammes subséquentes reliées à ce produit ont été complétées et remplies



Informations à remplir :

Cases grises pâles

Inspection :

Matières premières

Matériel Requis (Nom abrégé)	# de lot	Date d'expiration	Spécification et/ou identification
Résine	1028612	2017-05-17	Dion 7704
Norox (Résine)	41049	2017-08-01	MEKP-9
Norox (Gel coat)	41049	2017-08-01	MEKP-9
Gel coat blanc	702284	2017-03-20	55X-3535
Mat ¾ oz/pi²	5051100174-1	N/A	¾ oz Chopped Strand Mat (Owens Corning Or Equivalent)
Fibre de verre 7725	4294874	N/A	Hexcel 7725 Fiber Glass
Apprêt (Primer) (Vert)	18584	2018-12-31	Tempo 4500-PB-23G (Vert)
Durcisseur pour apprêt (hardener)	18317	2018-05-01	Tempo 4500-C-23
Attache mécanique (Camloc)	508986	N/A	2600-5
Rondelle de retenue pour Camloc	1745658	N/A	2600-LW

Équipement	Matériel auxiliaire	Santé et sécurité
Moule : MOU306 ou MOU309	FMS	Sarrau
Pompe à vide	55NC	Lunettes de sécurité
Jig de découpe et perçage : GAB350	Peel ply	Soulier de protection
Jig de finition et d'inspection : GAB355	Film perforé	Gants
	Bleeder breather	Masques à cartouches
Pince pour installer Camloc : OUT951	Bag big blue	
Outil pour installer rondelle de retenue : OUT952	Ruban scellant (Dum Dum)	

Documents auxiliaires
Annexe 1
Formulaire de résine (RES-DAR001)

MPS	Description
MPS-300-93-31-007-NC	Démoulage 55NC
MPS-300-93-31-058-A	Composite part inspection
MPS-300-93-31-020-B	Edge finish after trimming
MPS-300-93-31-097-NC	Epoxy - Polyamide primer
MPS-300-93-31-084-NC	Protection et entreposage des pièces

Suivi des révisions

# de révision	Contenu (et étape) de la révision	Date de révision	Révisé par :
A	Révision d'une OP inspection, Ajout nouveaux moules et retrait d'un type de primer	2015-03-04	Guillaume G.Jasmin
B	Ajout des conformateurs, du gabarit GAB355, de l'installation des camlocs, inspection du poids et identification finale	2015-03-25	Guillaume G.Jasmin
C	Mise à jour de la case approbation qualité page 1	2015-04-02	Guillaume G.Jasmin

Opération	Description	Références, outils et équipements	Date et Initiales
<u>Section A : PRÉPARATION</u>			
10	<u>Remplir les informations requises sur la première page (cases grises pâles)</u> • Demander au coordonnateur de production (ID) • Inscrire les heures et les dates d'entrée et de sortie de département		#21 23 FEV 2017 #23 22 FEV 2017
20	<u>Découper la fibre et les périssables (Peel ply, sac étanche...) selon l'ANNEXE 1</u> • ACHEMINER et REMPLIR la section « Matière premières » pour : - Fibre de verre 7725 - Mat ¾ oz	Annexe 1	#21 23 FEV 2017 #23 22 FEV 2017
40	<u>Préparer la résine selon RES-DAR001 (Gamme de formulation de résine)</u> ACHEMINER et REMPLIR la section « Matière premières » pour : - Résine - Norox	RES-DAR001	#28 28 FEV 2017
50	PRÉPARER le moule - Cochez le moule utilisé : MOU306 ☐ , MOU309 ☒ ☒ Nettoyer et traiter le moule ☒ Poser le Masking tape <u>Si nécessaire, traiter le moule au 55NC</u> • Faire le test de pelage, s'il ne passe pas, appliquer une couche de 55NC et refaire le test.	Annexe 1 MOU306 ou MOU309 MPS-300-93-31-007	#26 28 FEV 2017 #19 28 FEV 2017

130	<u>DÉMÔLER et IDENTIFIER la pièce</u> ☒ Brancher le système d'air comprimé ☒ Écrire le numéro de pièce et la date sur un collant – # de lot (date de début) – # de série ID Ex : (AAAAMMJJ) – (DAE001-XXX) ☐ Découper une pellicule de plastique protecteur bleu et la coller sur le rebord et à l'intérieur de la partie blanche (Gel coat) (Voir Annexe 1) ☒ Placer la pièce sur la table d'inspection	Annexe 1	#21 28 FEB 2017 #23 28 FEB 2017
140	<u>Point d'inspection (inspecteur qualité) :</u> ☒ Identifier la présence de surplus de résine ☒ Identifier la présence de bulles d'air ☒ Identifier la présence de zone sèche ☒ Identifier la présence de plis dans la fibre	MPS-300-93-31-058 Inspecteur Qualité 20170327	
150	<u>Nettoyer le moule</u> - Enlever la résine durcie tout le tour du moule avec une spatule en plastique pour ne pas endommager le moule <u>Si nécessaire</u>, nettoyer le moule avec un chiffon légèrement humecté de nettoyant à moule (PMC) NE PAS TROP APPLIQUER DE "PMC"	Spatule en plastique	2017-03-27 AB

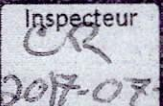
Section D : USINAGE

160	<u>PERÇAGE ET DÉCOUPE :</u> INSTALLER le Gabarit de perçage et découpe PERÇER la pièce - Perçer 4 trous avec un forêt F (Dia. .257 po) au travers des canons de perçage du Gabarit GAB350 DÉCOUPER la pièce - Retirer le Gabarit de découpe une fois terminé	GAB350 Annexe 1 Forêt F (Dia. .257 po)	#30 9 MAR 2017
170	<u>SABLAGE :</u> INSTALLER le Gabarit de finition et d'inspection GAB355 SABLER la pièce jusqu'à arriver à la dimension du Gabarit GAB355 (voir Annexe 1) RETIRER le Gabarit	GAB355 Annexe 1 MPS-300-93-31-020	NA 20

	ÉBAVURER les arêtes vives		
180	Point d'inspection (inspecteur qualité) : ☒ Plier les flanges (rebords) afin de s'assurer que le Gel coat ne craque pas (Voir Annexe 1 pour ce test) ☒ Vérifier la conformité de la pièce (Dimensions) selon le no. de dessin et selon le MPS-300-93-31-058	Annexe 1 MPS- 300-93- 31-058 2017-03-16	Inspecteur  Qualité

190	SABLER légèrement l'extérieur de la pièce • Papier 120 à 320 grains		#26 14 MAR 2017
200	NETTOYER les surfaces extérieures		#3 28 MAR 2017

Section E : FINITION/PEINTURE

210	APPLIQUER le primer • 2 couches d'environ 10 mils chacune	MPS- 300-93- 31-097	#3 28 MAR 2017
220	INSTALLER les attaches mécaniques (Camlocs) (Qte 4) (voir Annexe 1) • Utiliser les pinces spécialisées (OUT951) pour insérer les Camlocs dans les trous • Utiliser l'outil spécialisé (OUT952) pour installer les rondelles de retenues	Annexe 1 Pince à Camloc (OUT951)	#19 2 MAI 2017
230	Inspection finale : • Validation de la finition (pinholes, surface inégale, etc...) • Vérifier s'il y a un panneau de contrôle relié à la pièce • Étamber le carré dans le coin inférieur droit de la première page • Identifier la pièce finale (voir Annexe 1) pour exemple et localisation • Poids de la pièce : <u>6.6</u> (LBS)	Annexe 1 MPS- 300-93- 31-058	Inspecteur  Qualité

Section F : EXPÉDITION

240	Emballer et expédier	MPS- 300-93- 31-084	#8 31 OCT 2007
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